

GRAYS HARBOR – SATSOP FALL CHINOOK

STOCK STATUS

1992 STATUS

Healthy

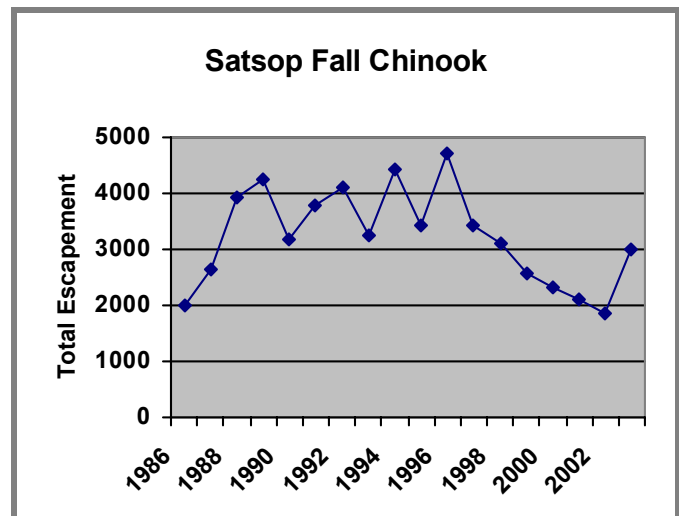
2002 STATUS

Healthy

STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: *Good*

YEAR	TOTAL ESCAPEMENT
1986	2009
1987	2628
1988	3937
1989	4234
1990	3173
1991	3778
1992	4098
1993	3240
1994	4431
1995	3427
1996	4704
1997	3445
1998	3122
1999	2556
2000	2305
2001	2091
2002	1,841
2003	2,999



Data are total escapement estimates based on redd counts within intensive and supplemental index areas and expanded to basin-wide totals. Index areas surveyed include the mainstem Satsop River (RM 2.5 to 6.3 – Supplemental and RM 6.3 to 11.0), East Fork Satsop River (RM 11.0 to 12.4, RM 12.4 to 14.7 and RM 14.7 to 17.5 – Supplemental). Adults trapped and placed upstream above the Bingham hatchery complex located at the confluence of the East Fork Satsop and Bingham Creek (RM 17.5) and those fish collected at the Bingham Creek Trap (RM 0.9) were included in the escapement estimate. Surveyed tributaries include Black, Canyon, Decker, Dry Run and Bingham creeks as well as unnamed tributary 22.0459.

Although Satsop fall Chinook escapements have declined since 1996, they are still within the normal variation range of escapements when the stock was rated Healthy in 1992. Consequently stock status is again rated **Healthy** in 2002.

STOCK DEFINITION

Satsop fall Chinook were identified as a stock based on their distinct spawning distribution, later river entry timing (begins in early October) and spawning timing.

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SPAWNING DISTRIBUTION: Most spawning takes place in the mainstem Satsop River, Canyon River and the east and west forks of the Satsop River. Spawning also occurs in Bingham, Decker and Black creeks as well as unnamed tributaries 22.0366 and 22.0372.

SPAWNING TIMING: Spawning generally occurs from October to early December, peaking in late October to mid-November.

GENETIC ANALYSIS: East Fork Satsop River fall Chinook spawners sampled in 1993 were found to be significantly different from those of other Washington Chinook stocks examined. They were genetically most similar to other south Washington coast fall-run stocks. Fall Chinook in other Satsop Basin areas have not been sampled (Marshall 2002).

STOCK ORIGIN

This is a **native** stock with **composite** production. Although there have been extensive releases of non-native fall hatchery Chinook including Humptulips, Willapa Bay, Puget Sound, Columbia River and Oregon coastal stocks, into the Satsop basin since 1952, genetic evidence from the East Fork Satsop River stock indicates a more native profile. There is no lingering evidence of Puget Sound Chinook genetic contribution in the East Fork Satsop River stock sampled. The Oregon and Columbia River stock releases were minor, and no genetic evidence of their contribution has been found (Meyers et al. 1998). Hybridization with the native stock has apparently been insignificant (Marshall 2002).